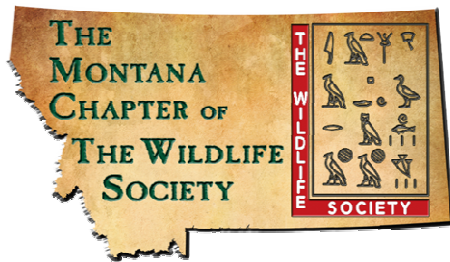


**"To encourage and support effective wildlife management in Montana by fostering development of current and future wildlife professionals, providing science-based information for policy and education, and communicating and collaborating with conservation organizations and the public." MT TWS**

**VOLUME 17, ISSUE 2  
WINTER 2015/2016  
P. 1**



# NEWS

## Message from the President



**Brent Lonner**

Hello fellow TWS members and interested persons. I hope this newsletter finds you doing well and enjoying another Montana winter (albeit mild) or where ever you are at. I had high hopes of getting this newsletter out by the end of 2015...better late than never. Fortunately the delay has also provided an opportunity to add a few more details to this newsletter. Thanks to all those that contributed!! Enjoy!

### 2016 MT Chapter Conference

**- WILDLIFE RESTORATION -  
CELEBRATING CONSERVATION SUCCESS  
AND FACING FUTURE CHALLENGES**

**February 22<sup>nd</sup> – 26<sup>th</sup>**

**Missoula Holiday Inn Downtown**

**See page 2 for more details...**

In October, I had the good fortune of attending The National Wildlife Society (TWS) conference held in Winnipeg, Manitoba representing our MT TWS Chapter. Both a first for me, visiting Manitoba and attending The National TWS meeting. And I must say, if anyone ever gets a chance to attend a National TWS meeting, do it. This year's National Meeting is scheduled for October 15-19 in Raleigh, North Carolina (see page 4 For further details). In addition to the impressive list of talks, workshops, posters, and field trips, I found networking with other state, province and national chapter members to be invaluable – similar to our MT TWS Annual Conference. The National TWS conference provides that additional opportunity to gain perspective of national and international issues. Interesting to hear how many other places deal with similar issues that we may believe are unique to Montana.

The theme of the 2015 National TWS conference centered around the basic question of 'Why do Wildlife Matter?' A simple yet thought provoking question as was outlined by the speakers and questions in the plenary session. The obvious answers and discussion to this question relate to sustaining wildlife and associated habitats for not only the benefit of the species, but also to provide opportunities for our future generations. There is also a growing need to reiterate the importance of respecting wildlife species and habitats. The less obvious answers to this question relates to how we accomplish this. As many of us are aware, being a wildlife biologist, wildlife or natural resource educator/student, habitat or species specialist, technician, etc., takes a multidisciplinary approach. Today, the need to have at least a general understanding of educational, social and political values in addition to the core aspects of wildlife research and management is as important as ever. As well, the need to continually communicate with multiple different government and nongovernment entities and interests also remains important and challenging.

Perhaps most importantly and something that hit home to me as much anything during this discussion, was the need to engage our youth with the value of nature. Understanding these values is extremely important and teaches and gives them appreciation and respect to the natural world....something they could carry with them for a lifetime. So, with that, I challenge you to take advantage of that next opportunity to visit with a school group, go for a hike with a young person, mentor a student, or mentor a young professional. I guarantee you won't regret it.

## **2016 Montana Chapter Annual Conference**

### **- WILDLIFE RESTORATION -**

### **CELEBRATING CONSERVATION SUCCESS AND FACING FUTURE CHALLENGES**

**When: FEBRUARY 22-26, 2016**

**PRESIDENT-ELECT**

**Where: MISSOULA HOLIDAY INN DOWNTOWN**

**Conference Committee: Contact Mark Ruby, [mttws.preselect@gmail.com](mailto:mttws.preselect@gmail.com)  
406-207-7015 (cell) or 406-837-7531 (office)**

Any individuals interested in helping out at the meeting please contact Mark Ruby. Committee participation is a great way to have fun and build professional relationships.



**Mark Ruby**

#### **Hotel Information:**

##### **Holiday Inn Downtown Missoula, MT**

##### Government Rate

\$93/night

##### Non-Government Rate

\$109/night

The block of rooms that was set aside specific to those attending the conference has expired, however rooms are still available. Call 406-721-8550 or 1-800-HOLIDAY for information and make your reservations soon. Online booking is available at: <http://www.ihg.com/holidayinn/hotels/us/en/missoula/msumt/>

Check out our MT TWS website: <http://wildlife.org/montana-chapter/montana-chapter-annual-meeting/> for conference registration information and more on the conference schedule, workshops, plenary session info, etc.

**Early registration is open! Early registration will be open through February 12. After that, registration will remain open, but registrations costs will increase. Use the link below to register:**

**<https://www.regonline.com/montanachapterofthewildlifesociety2016annualconfer>**

#### **Abstract/Presentation and Poster Submission**

The deadline for abstract submission was January 18, 2016. Oral presentations on all aspects of wildlife research, conservation and management were welcome. This year we actively sought presentations by wildlife and habitat researchers and managers with a focus on wildlife restoration. At last count it appears we have another strong and diverse group of presentations and posters for this year – thanks to those that have submitted!! For further information related to oral presentation and poster abstracts contact Mark Ruby.

**Silent Auction Donations: contact Kristina Boyd, [mttws.pastpres@gmail.com](mailto:mttws.pastpres@gmail.com)**

Support outstanding wildlife students in our state by donating items to the silent auction. All proceeds go towards the Wynn G. Freeman Memorial Scholarship Fund.

The Annual Award Nominations Deadline was January 15<sup>th</sup> so hopefully some folks had a chance to submit a nomination for a worthy individual or group. Contact Brendan Moynahan (awards committee chair), [brendan\\_moynahan@nps.gov](mailto:brendan_moynahan@nps.gov) for further information.

**Interested or know of anyone that may be a good candidate for MT TWS President-Elect or Treasurer?  
If so, please contact MT TWS President Brent Lonner at [mttws.president@gmail.com](mailto:mttws.president@gmail.com)  
Please contact ASAP - elections to be held at this year's MT TWS Annual Conference.**

## **MT TWS EDUCATION COMMITTEE**

The education committee of MT TWS was well represented at the 2015 MEA/MFT Conference in Billings on October 15 and 16. According to the registration desk, there were over 2,900 educators from around the state that attended this conference. A BIG THANKS to all 5 of the MT TWS presenters – Jim Bailey, Terry Lonner, Bryce Maxell, Megan O'Reilly and Kate Stone. Each presenter had good attendance, were impressive in their presentation and well received with good interaction from educators attending each sectional. Next years conference will be in Helena so please contact MT TWS Education Committee chairs Terry Lonner ([tlonner@mediaworksvideomt.com](mailto:tlonner@mediaworksvideomt.com)) or Steve Gniadek ([grayjaybro@yahoo.com](mailto:grayjaybro@yahoo.com)) if you have an interest in presenting at the 2016 MEA-MFT conference. See below for a brief synopses of each of their presentations.

### **James Bailey - American Plains Bison - Rewilding an Icon**

A wild bison herd is one whose genome is affected by a preponderance of natural selection. There are about 250,000 bison being domesticated in commercial herds in the USA. In contrast, we have about 17,000 bison in "conservation herds". However, practices leading to domestication are abundant in our conservation herds. Montana TWS brochures and feedback forms were provided.

### **Kate Stone - Montana Birds on the Move**

In this sectional, Kate demonstrated various ways scientists study bird migration. They discussed the results of research conducted in Montana to learn more about where and how our birds travel. They discussed the tools available for integrating migration concepts into classrooms or school projects. Montana TWS brochures and feedback forms were provided.

### **Megan O'Reilly - Adaptation: How Wet is Our Planet**

Fun, hands-on lesson introduced distribution and relative amounts of water on the earth, major water sources and how much water is in each. Megan Discussed and demonstrated which water sources are "available" for use and the importance of water quality and quantity. Montana TWS brochures and feedback forms were provided.

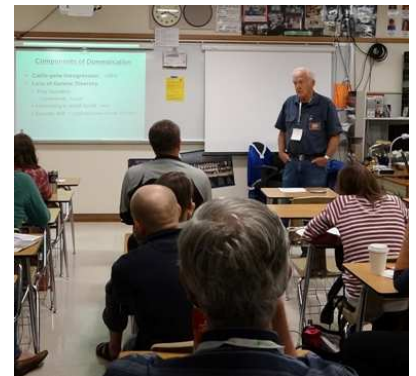
### **Bryce Maxell - Amphibians, Reptiles, and Bats: an overview**

Amphibians, reptiles, and bats have undergone recent declines. This sectional provided an overview of the diversity, biology, and environmental causes of declines in these groups, ongoing research, and management considerations for these species. Lesson ideas and resources for planning lessons were presented. Montana TWS brochures, feedback forms and posters were provided.

### **Terry Lonner - Montana's History of Wildlife Conservation**

Montana's Wildlife Legacy is a story not often told in a comprehensive context. This presentation explained why Montana's wildlife conservation movement provides a model example of the success of the hunter-funded North American approach to wildlife conservation in caring not only for wildlife and its habitat, but also for people. MT TWS brochures, feedback forms and posters were provided.

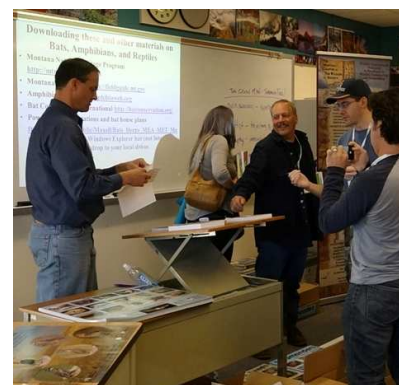
**Jim Bailey**



**Kate Stone**



**Megan O'Reilly**



**Bryce Maxell**



## **OTHER TWS UPDATES:**

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### **REMINDER – MT TWS OFFICIALLY HAS A NEW WEBSITE:**

**<http://wildlife.org/montana-chapter/>**

As of this past summer (2015), our MT state chapter website migrated to coincide with the National TWS website platform. The majority of all state TWS chapter websites have also completed this transition. One of the main benefits of utilizing National TWS to be our official website platform is that it saves our chapter the time and trouble of completing website changes, updates and other routine maintenance. With National TWS providing website management as a service to our chapters, it creates consistency and lessens the burden on our shoulders. As with any website, we will continue to resolve pertinent details and updates to get the content and functionality as up to date as possible. If anyone has any questions regarding the new site or finds any errors/updates please contact **MT TWS secretary John Waller** at [mttws.secretary@gmail.com](mailto:mttws.secretary@gmail.com)

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### **NEW MT TWS STRATEGIC PLAN**

Thanks to some hard work from the Strategic Planning Team this past year along with edits and feedback from membership, we are in the final stages of completing our new MT TWS Strategic Plan. This plan will be the guiding document for our Chapter ultimately related to our goals, objectives and associated activities for the next three years. Look for further information and consider volunteering to help implement this plan at our upcoming Annual Conference in Missoula. If you have any questions related to this document and process, please contact one of your MT TWS executive board members (see last page of this newsletter for contact info.)

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### **TWS NORTHWEST SECTION**

The Northwest Section of TWS and the Oregon Chapter TWS are holding a joint annual conference this year in Seaside, Oregon. Meeting dates are right around the corner – February 3<sup>rd</sup> – February 6<sup>th</sup>, 2016.

For further information on the conference visit:

<https://ortws.wordpress.com/>

For further information related to the latest activities within the NW Section check out the fall, 2015 newsletter:

<http://wildlife.org/nw/news/>

Thanks again to MT TWS members  
**Julie Cunningham** (President – NW Section)  
& **Kurt Alt** (President-Elect – NW Section)  
for serving as an officer for the NW Section TWS!

### **2016 NATIONAL TWS CONFERENCE**

The 2016 National Annual TWS conference is set for October 15-19, 2016 in Raleigh, NC.

For further information and details related to this year's conference visit:

<http://wildlife.org/tws-23rd-annual-conference/#prettyPhoto>



## **Legislative Update - Montana Audubon and Montana Wildlife Federation's Walk Through the 2015 Legislature and Beyond**

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**By Amy Seaman, Montana Audubon Associate Director of Conservation, and Nick Gevock, Montana Wildlife Federation Conservation Director**

Successful conservation advocacy at the state Capital is born out of vigilance, expertise in key issues affecting our wildlife and environment, and strategic partnerships. For years this need has brought Montana Wildlife Federation (MWF) and Montana Audubon together in the legislative halls. Our joint mission of ensuring programs and laws adequately protect our wildlife, their habitats and our outdoor heritage leads to many overlapping priorities and this held true in 2015.

At the top of our priorities were two very significant pieces of wildlife legislation: SB 261, the Montana Sage-grouse stewardship act, and HB 140, the Fish, Wildlife and Parks license fee bill. SB 261 created a framework for implementing the Governor's Executive Order on Sage-grouse by establishing the Montana Sage-Grouse Oversight Team and a process to manage a \$10 million dollar stewardship fund. The stewardship fund and money for five full-time program employees was a legislative one-time-only allocation in the 2015-2017 state budget. Achieving this required representatives from agriculture, conservation, oil and gas, coal, land trusts and more to collaborate, and as we move forward, more funding will have to be granted by subsequent legislatures to maintain the program.

HB 140 revamped Montana's hunting and fishing license fees. It simplified the number of licenses and for the vast majority of Montana hunters and anglers means \$8 more per year to hunt and \$3 to fish. The increase will provide an additional \$4.7 million per year in general license account dollars for FWP's regular operations. These funds support survey flights, biological data collection, fisheries management and the management of an astounding 746 species of non-game animals. Single-species tag prices, including deer and elk tags, did not change, but fees for non-resident special tags including moose, bighorn sheep, mountain goats and bison was bumped up. In a unique twist, the Senate Finance and Claims Committee amended HB 140 with a provision (defeated as SB 395) allowing youths ages 10-17 to go hunting with a mentor (21 or older) prior to completing hunter education programs.

Our organizations also came together to advocate on numerous game and non-game issues such as: stronger penalties for hunter transgressions, a ban on the import and possession of feral swine, maintaining FWP authority over bison, strengthening aquatic invasive species laws, defining game animals, maintaining Fish and Wildlife Commission authority over Sage-grouse hunting, and defeating efforts to bar FWP from purchasing key wildlife habitat with the Habitat Montana program. Though Habitat Montana was funded in 2015, the legislature put side-boards on FWP spending authority. We expect Habitat Montana, a hunter-funded program, and similar program's (Upland Game Bird Enhancement program, Bighorn Sheep funds, etc.) spending authorities will be under attack in 2017.



Signing of SB 261 – The Montana Sage-grouse stewardship act.

## **Legislative Update - Montana Audubon and Montana Wildlife Federation's Walk Through the 2015 Legislature and Beyond (Cont'd...)**

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In addition to wildlife, one of our major priorities was defeating over a dozen bills targeting more than 27 million acres of federal land in Montana. The idea of “federal land transfer” to the states has been growing throughout the West, and is spearheaded by the Utah-based American Lands Council. A state takeover of federal lands would require either massive state tax increases to cover firefighting and other management costs, or force a large land sale to cover those costs. Montanans would lose access to our favorite hunting and fishing grounds, and it would jeopardize our healthy, sustainable \$6 billion outdoor recreation industry. Nearly every one of these bills was defeated and as an added testament to the strength of our opposition, Montanans of all political persuasions, packed the Capital with more than 500 people Feb. 16 during a “Public Lands in Public Hands” rally to oppose the idea of public land transfers.

In addition to our shared priorities, MWF brought forward its own package of bills to improve access to public land. This included addressing the issue of gated public roads leading to national forests, Bureau of Land Management, state school trust and other public lands. Unfortunately, those bills were tabled in the House Transportation committee. They met opposition from several groups, including agriculture groups, the Montana Association of Counties and the United Property Owners of Montana, but these bills will be refined for the 2017 session. MWF was also there to advocate on policies that would have affected fair chase hunting culture, stream access, game damage laws, game wardens ability to do their jobs, and more.

While Montana Audubon is less focused on access and laws directly affecting game management, it is well-known for legislative focus on energy, general environmental policy (such as groundwater protection), and land-use planning. Advocating for clean energy and greater energy-industry transparency was an uphill battle. During the first 45 days, most bi-partisan, widely-supported “net metering” or “local solar” bills were tabled. Montana Audubon was also there to advocate for groundwater testing within one mile of proposed oil or gas wells, a prohibition on earthen pits or ponds during oil and gas development, the disclosure of hydraulic fracturing chemicals, general water quality, pipeline information transparency, zoning legislation, increased metal mine bonding, and more.

Both organizations were tireless advocates for Montana's wildlife, habitat protection, clean water, air, public lands, and our hunting heritage. In 2017, we will be back in the Capital halls to remind legislators the conservation of Montana and our outdoor heritage is priceless.

To stay updated with legislative issues please visit both the Montana Wildlife Federation and Montana Audubon's websites and join our online action networks! During the session both groups work to maintain an updated list of priorities and action alerts on the web. For more information please contact:

**Amy Seaman:** [aseaman@mtaudubon.org](mailto:aseaman@mtaudubon.org), or 406.210.9449

**OR**

**Nick Gevock:** [ngevock@mtwf.org](mailto:ngevock@mtwf.org) or 406.458.0227

Montana Audubon Legislative Website: <http://mtaudubon.org/conservation-policy/2015-montana-legislature/>

Join the Montana Online action network at: <http://mtaudubon.org/join-our-online-network/>

Montana Wildlife Federation Website: <http://montanawildlife.org/>

Join the Montana Wildlife Federation Online action network at: <http://montanawildlife.org/action-alert-sign-up/>

## **Member Recognition and Stories**

Congratulations to MT TWS members **Steve Belinda** and **Kevin Hurley** for receiving National TWS recognition by getting nominated for and awarded the TWS Fellows Award. The TWS Fellows Award recognizes current TWS members who have distinguished themselves through exceptional service to the wildlife profession and have been TWS members for at least 10 years. TWS Fellows serve as ambassadors of The Wildlife Society and are encouraged to engage in outreach and other activities that will benefit and promote both TWS and the wildlife profession. Fellows are appointed for life. Congratulations Steve and Kevin!

### **THE NORTHERN BOG LEMMING – TO LIST OR NOT?**

**By Lauri Hanauska-Brown and Kristi Dubois  
(MT Fish, Wildlife & Parks)**

The Northern Bog Lemming (*Synaptomys borealis*) is one of the latest species to find itself under the scrutiny of the Endangered Species Act. Based on a petition filed by Wild Earth Guardians, the USFWS announced a 90 day finding that requested information on *S. borealis* throughout its range. This request for more information indicates the USFWS believes adequate information was provided in the petition to warrant an examination of this species and possibly listing under the Endangered Species Act.



© 2015 Kristi Dubois

*S. borealis* has been detected in six Montana counties in the state including Beaverhead, Flathead, Lewis and Clark, Lincoln, Missoula, and Ravalli counties. With some recent record additions, the Montana Natural Heritage Program (MNHP) has records of *S. borealis* from 23 locations scattered across western Montana, ranging in elevation from 3,400 to 7,400 feet (MNHP, November 2015). Targeted survey efforts in the past by the MNHP and Montana Fish, Wildlife & Parks (MFWP) have sampled only a portion of the areas potentially occupied by this species.

*S. borealis* is classified as a Species of Concern '2' in Montana and a Species of Greatest Inventory Need in both our state Species of Concern ranking system and in Montana's State Wildlife Action Plan. Only 14% of Montana is thought to be within the breeding range of the bog lemming, providing only 1% of the global breeding range overall. In Montana, *S. borealis* are thought to be typically associated with peatlands such as fens, yet it remains unclear just how diverse *S. borealis* is in its habitat selection. *S. borealis* in Montana have been found in at least nine community types, including Engelmann spruce, subalpine fir, western hemlock, birch, willow, sedge (*Carex*), spikerush (*Eleocharis*), or combinations of the above. Most, but not all Montana *S. borealis* sites have saturated peat moss (*Sphagnum*) mats. Targeted surveys have been focused on the assumed highest quality habitat but *S. borealis* have been incidentally captured in less typical habitat during small mammal capture inventories.

Surveys of potential suitable habitat remain incomplete, and the poor efficiency of standard small mammal trapping methods for *S. borealis* makes it difficult to interpret negative trapping results. For example, MFWP was only able to capture 2 individuals, both at 1 site, after live-trapping 6 known *S. borealis* sites for a total of 4,119 trap nights in 2012.



## **Member Stories (cont'd...)**

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### **THE NORTHERN BOG LEMMING – TO LIST OR NOT? (CONT'D...)**

Having conducted many trapping efforts for this species MFWP biologist Kristi DuBois is looking at new methods. Over the past two years Kristi has painstakingly designed and tested a new camera trap specifically for the *S. borealis*. The complicated set up uses a tripod mounted trail camera pointed straight down towards a 6 x 6" board baited with a little muskrat lure. The board serves two purposes; it provides a background for the photos and it also serves as a collection spot for scat. Scat collection and DNA analysis is the second part of Kristi's efforts to detect *S. borealis*.

Designing new detection techniques for any species is not easy but doing so for a hard to detect species like *S. borealis* has proven extremely difficult and time consuming. The habitat for this species is full of standard challenges such as mosquitoes and grizzly bears but also swampy sink holes. Designing and testing the trail cameras has involved hours of looking at photos of empty boards, moss or even sky, then hours of adjustment and new attempts. Large ungulates and bears tested the tripods as scratching posts and windy conditions blew over camera sets. The largest challenge of a successful DNA based strategy is finding quality tissues from dead *S. borealis* with which to establish the required genetic sequencing. MFWP has provided tissue samples from three *S. borealis* captured during surveys done in 2011-2012 to the USFS Rocky Mountain Research Station National Genomics Center for Wildlife and Fish Conservation for genetic sequencing. Scat samples collected from scat plates during 2014-2015 by MFWP will be analyzed as well to determine if genetic detection from scat is possible. Evaluation of these techniques will not be completed until sometime in 2016. MFWP is hopeful that through the use of noninvasive techniques the question of *S. borealis* presence and species status can be more adequately addressed in Montana.

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### **LONG-BILLED CURLEW SURVEYS**

**By Kristina Smucker and Claire Gower  
(MT Fish, Wildlife & Parks)**

The Long-billed Curlew is an icon of the American prairie and intermountain grasslands – if you've spent time in Montana's grasslands during the summer, chances are you've encountered this relatively large, conspicuous and sometimes noisy shorebird. But like many grassland birds the curlew has experienced range-wide declines, largely due to habitat loss as native grasslands are converted to cropland.

Montana Fish, Wildlife and Parks staff in Regions 3 and 4 initiated Long-billed curlew surveys in spring 2015 using a protocol developed for statewide surveys conducted in 2012. Long-billed curlews are a Species of Concern (SOC) in Montana, so the objective of this work was to add curlew

locations to the statewide database to better understand the species status, distribution and habitat needs. Surveys are conducted by driving 5-10mi long routes during the breeding season when the birds are active and therefore visible and vocal. Surveyors stop every half mile to look and listen for curlews. In addition to standard surveys, incidental forms were provided to regional wildlife and enforcement staff to record curlew seen throughout the summer.



© 2009 Jerry Kirkhart



## **Member Stories (cont'd...)**

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### **LONG-BILLED CURLEW SURVEYS (CONT'D...)**

Region 3 resurveyed 9 routes established in 2012 and added 3 additional survey routes. We intend for these survey routes to be established as permanent trend areas with which to monitor the health of native grassland bird habitat. Surveys generated a huge amount of support from biologists and enforcement officers within the region who either participated in the standardized survey routes or submitted incidental observation forms. Curlews were detected on 7 of 12 routes. On standardized surveys we observed 25 curlew groups (group size ranged from 1-5) totaling 51 individuals; an additional 91 individuals in 17 groups were recorded as incidental observations. Region 4 resurveyed 4 routes established in 2012, added 11 new survey routes, and marked incidental sightings in 4 focal areas. Focal areas and new survey routes were targeted to fill data gaps in areas where habitat suitability models predict good curlew habitat. Data were collected by biologists and citizen scientists from the Upper Missouri River Breaks Audubon Chapter. Curlews were detected on all 15 survey routes and ~50% of points on formal survey routes were occupied. We detected a total of 327 curlews – 183 were recorded on formal survey routes and 144 incidental records came from focal areas.

Many, many thanks to those who conducted surveys – we had 22 participants this year. In 2016 we plan to repeat surveys and expand the program to Regions 5, 6, and 7 – if you are interested in participating contact the coordinating FWP Wildlife Biologist in your area. These cooperative, cross division efforts are important in gathering information on our less visible Montana species.

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### **THE FERAL PIGEON, MIGHTY OR LOWLY:**

#### **AN UNLIKELY SPECIES IN SOCIAL AND ECOLOGICAL RESEARCH**

**By Cody Richardson & Dr. Stella Capoccia - Department of Biology, Montana Tech, Butte**

This article promotes the feral pigeon (*Columba livia*) as an important subject for ecological research. We summarize the findings of a multi-year study on the population dynamics of feral pigeons which highlights their role in urban ecology and as a valuable subject in ecological research. Pigeons may not have the same glamorous status as more majestic megafauna, but we have found that pigeons hold an important role in both ecological and social contexts.

Our research focuses on the population dynamics of feral pigeons in Butte, Montana. Our work was initiated to investigate a complaint made by business owners of the Central Business District (CBD) of Uptown Butte that addressed the feral pigeon populations and the effects caused by the bird's feces and feathers. The Biological Sciences Department at Montana Tech was contracted to assess habitat use by these pigeons. Our results mapped the overall distribution and showed a strong connection between pigeons and specific human environments (Capoccia & Boyle 2014). We went on to characterize the human community's attitudes towards pigeons. In addition to the negative attitudes as framed in the complaint, we also discovered that many citizens have strong positive attitudes towards pigeons which must be considered when designing a population management plan.

Our initial findings led us to a second phase of research: to calculate the approximate size of the population, examine dispersal, and estimate individual home ranges. For this phase we are using conventional trap-tag and re-sight methods. Captured individuals were fitted with colored leg bands that coincide with the trapping locations. Re-sight data using point-count transect surveys provide data on the ratio of marked to unmarked birds which generates population estimates, determines home range, distribution, and dispersal habits.

## **Member Stories (cont'd...)**

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### **THE FERAL PIGEON, MIGHTY OR LOWLY:**

#### **AN UNLIKELY SPECIES IN SOCIAL AND ECOLOGICAL RESEARCH (CONT'D...)**

Observations of roosting, nesting, feeding areas and behaviors help to target locations or times to control populations. For example, enforcing building codes to decrease the number of open windows that afford nest sites and a reduction in public feeding are measures that limit population growth (Capoccia and Boyle 2014). Lethal measures, along with chemical contraception, should only be used once the aforementioned management protocol is in practice and in conjunction with population models to ensure projected efficacy.

One of our most unexpected findings was that, while often dismissed for not being a true wildlife species, the feral pigeon is a free-roaming animal that offers unprecedented research opportunities. Specifically, the pigeon provides wildlife ecologists opportunities to learn and experiment with a range of techniques pertaining to population dynamics, animal behavior, ecological interactions, and basic study design. Compared to other species, pigeons are often close-at-hand, easy to capture and handle, and require minimal permitting. Further, pigeons hold a well-established place in urban and suburban biodiversity. Pigeons are known as an important food source for raptors and other predators and modeling pigeon populations as part of biodiversity can provide insight into everything from climate change to avian-borne illnesses. With increasing urbanization, it is important to observe the biology of species that have adapted successfully as well as to manage human interactions with these species. These attributes make pigeons a superb animal to study for everything from population models to animal behavior.

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### **2015/16 MT TWS EXECUTIVE BOARD**

**PRESIDENT – BRENT LONNER**  
[Mttws.president@gmail.com](mailto:Mttws.president@gmail.com)



**PRESIDENT-ELECT – MARK RUBY**  
[Mttws.preselect@gmail.com](mailto:Mttws.preselect@gmail.com)



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**SECRETARY – JOHN WALLER**  
[Mttws.secretary@gmail.com](mailto:Mttws.secretary@gmail.com)



**MT TWS WEBSITE -**  
[HTTP://WILDLIFE.ORG/MONTANA-CHAPTER/](http://wildlife.org/montana-chapter/)





## **Now Available on the Internet**

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**MT Chapter of the American Fisheries Society**

**Montana Academy of Sciences**

**[www.IntermountainJournal.org](http://www.IntermountainJournal.org)**

### **What is IJS?**

- *The Intermountain Journal of Sciences (IJS) offers a regional peer-reviewed journal for scientists, educators and students to submit original research, management applications, or viewpoints concerning the sciences.*
- *IJS has been published since 1995 to enhance the educational outreach goals of the sponsoring organizations.*

### **What is Published in IJS?**

- *Any regional submissions of manuscripts dealing with the sciences are welcome.*
- *Abstracts from presentations at annual meetings of the co-sponsoring organizations appear in the last issue of each volume if submitted by the sponsoring organization(s).*

### **What is Available Online?**

- *IJS has a world-wide presence through its website, Montana State University's ScholarWorks (archival home of IJS ) & Search Engines.*
- *All published manuscripts or written presentations and poster abstracts from the sponsoring organizations can be found individually as unarchiving progresses.*
- *All contents are "OPEN ACCESS", ensuring maximum availability without costs and press ready PDFs can be downloaded, saved or printed immediately.*

**Additional Information and Contacts:  
[www.intermountainjournal.org](http://www.intermountainjournal.org)**